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Page 3

Art Unit: 2811

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51. (Amended) The device of claim 22 wherein said channel formation region is crystallized by laser irradiation through a layer comprising at least one of silicon oxide and silicon nitride on said channel formation region.

52. (Amended) The device of claim 23 wherein said channel formation region is crystallized by laser irradiation through a layer comprising at least one of silicon oxide and silicon nitride on said channel formation region.

53. (Amended) The device of claim 24 wherein said channel formation region is crystallized by laser irradiation through a layer comprising at least one of silicon oxide and [silicon nitride] on said channel formation region.

55. (Amended) The device of claim 54 wherein said channel formation region is crystallized by laser irradiation through a layer comprising at least one of silicon oxide and silicon nitride on said channel formation region.

58. (Amended) The device of claim 57 wherein said channel formation region is crystallized by laser irradiation through a layer comprising at least one of silicon oxide and silicon nitride on said channel formation region.

#### REMARKS

At the outset, the Examiner is thanked for the review and consideration of the present application.

The Examiner's Office Action dated February 13, 2002 has been received and its contents reviewed. By this Amendment claims 15-17, 27, 31, 33, 34, 35, 39, 43-53, 55 and 58 have been amended. Claims 2, 3, 6-8, 11, 12, 15-17, 19-35 and 37-67 are pending in the present application, of which claims 2, 3, 6-8, 19-24, 54, 57, 60 and 61 are independent.

Referring now to the Office Action, claims 61, 63, 65 and 67 are rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, has possession of the claimed invention. More particularly, the Examiner asserts that the feature of "a pixel electrode over the transistor" recited in claim 61 is not supported. Applicants respectfully submit that support can be found at least in, e.g., Figs. 10(D) and (E) and in page 40, third paragraph, of the specification. Accordingly, the § 112, first paragraph, rejection is respectfully requested to be reconsidered and withdrawn.

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Application No.: 09/295,607

Art Unit: 2811

Page 4

Claims 15-17, 27, 31, 33-35, 39, 43-53, 55 and 58 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim that subject matter which applicants regard as the invention. Accordingly, Applicants have amended claims 15-17, 33-35, 27, 39, 31, 43-53, 55, and 58 as shown above to overcome all the 35 U.S.C. § 112, second paragraph, rejection. Accordingly, the rejection of claims 15-17, 27, 31, 33-35, 39, 43-53, 55, and 58 is respectfully requested to be reconsidered and withdrawn.

Claims 60-67 are rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Troxell et al. in view of Ikeda (Japanese Patent No. 59-121876 in PTO-1449), further in view of Shimada et al. Further, claims 2, 3, 6, 7, 8, 11, 12, 15-17, 19, 20, 22-26, 28-35, 37, 38, 40-49 and 51-53 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 15-26 of U.S. Patent No. 5,583,369 (Yamazaki et al.) in view of Troxell et al.; claims 21, 27, 39 and 50 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 15-26 of U.S. Patent No. 5,583,369 (Yamazaki et al.) in view of Mano et al.; and, claims 54-67 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 15-26 of U.S. Patent No. 5,583,369 (Yamazaki et al.) in view of Shimada et al. These rejections are respectfully traversed at least for the reasons provided below.

The present invention is generally directed to a semiconductor device comprising an insulating film of aluminum nitride provided over a front surface or under a rear surface of a substrate, wherein the insulating film comprises oxygen or carbon to control the tension of the insulating film. Applicants respectfully submit that, however, none of the references cited by the Examiner discloses, teach, or suggest the above-mentioned feature of aluminum nitride comprising oxygen or carbon.

Applicants respectfully submit that the requirements for establish a *prima facie* case of obviousness, as detailed in MPEP § 2143 - 2143.03 (pages 2100-122 - 2100-136), are: first, there must be some suggestion or motivation, either in the reference themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference to combine the teachings; second, there must be a reasonable expectation of success; and, finally, the prior art reference (or references when combined) must teach or suggest all of the claim limitations.

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cket No.: 740756-1961 Application No.: 09/295,607 Page 5

Art Unit: 2811

As none of the cited prior art references teach, disclose, or suggest the insulating film comprises oxygen or carbon recited in Applicants' pending claims, the § 103(a) rejection, as well as the judicially created double patenting of obviousness-type, would not be proper.

In view of the foregoing amendments and arguments, Applicants respectfully request reconsideration and withdrawal of the U.S.C. § 103(a) rejections of claims 2, 3, 6-8, 11, 12, 15-17, 19-35 and 37-67, as well as all the double patenting rejections.

#### **CONCLUSION**

Having responded to all rejections set forth in the outstanding non-Final Office Action, it is submitted that claims 2, 3, 6-8, 11, 12, 15-17, 19-35 and 37-67 are now in condition for allowance. An early and favorable Notice of Allowance is respectfully solicited. In the event that the Examiner is of the opinion that a brief telephone or personal interview will facilitate allowance of one or more of the above claims, the Examiner is courteously requested to contact Applicants' undersigned representative.

Respectfully submitted,

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Art Unit: 2811 Page 6

## VERSION OF AMENDED CLAIM WITH MARKINGS TO SHOW CHANGES MADE

15. (Amended) The [display] <u>device</u> of claim 6 wherein said substrate is a glass substrate.

- 16. (Amended) The [display] <u>device</u> of claim 7 wherein said substrate is a glass substrate.
- 17. (Amended) The [display] device of claim 8 wherein said substrate is a glass substrate.
- 27. (Amended) The [device] <u>display</u> of claim 21 wherein said substrate is a glass substrate.
- 31. (Amended) The device of claim 2 wherein said aluminum nitride insulating film has a thickness of 100 Å to 5000 Å [or less].
- 33. (Amended) The [display] <u>device</u> of claim 6 wherein said aluminum nitride insulating film has a thickness of 100 Å to 5000 Å.
- 34. (Amended) The [display] <u>device</u> of claim 7 wherein said insulating film comprising aluminum nitride has a thickness of 100 Å to 5000 Å.
- 35. (Amended) The [display] <u>device</u> of claim 8 wherein said [aluminum nitride layer] <u>insulating film</u> has a thickness of 100 Å to 5000 Å.
- 39. (Amended) The [device] <u>display</u> of claim 21 wherein said aluminum nitride insulating film has a thickness of 100 Å to 5000 Å.
- 43. (Amended) The device of claim 2 wherein said channel formation region is crystallized by laser irradiation through [an insulating film] a layer comprising at least one of silicon oxide and silicon nitride on said channel formation region.
- 44. (Amended) The device of claim 3 wherein said channel formation region is crystallized by laser irradiation through [an insulating film] a layer comprising at least one of silicon oxide and silicon nitride on said channel formation region.
- 45. (Amended) The device of claim 6 wherein said channel formation region is crystallized by laser irradiation through [an insulating film] a layer comprising at least one of silicon oxide and silicon nitride on said channel formation region.

46. (Amended) The device of claim 7 wherein said channel formation region is crystallized by laser irradiation through [an insulating film] a layer comprising at least one of silicon oxide and silicon nitride on said channel formation region.

- 47. (Amended) The device of claim 8 wherein said channel formation region is crystallized by laser irradiation through [an insulating film] a layer comprising at least one of silicon oxide and silicon nitride on said channel formation region.
- 48. (Amended) The device of claim 19 wherein said channel formation region is crystallized by laser irradiation through [an insulating film] a layer comprising at least one of silicon oxide and silicon nitride on said channel formation region.
- 49. (Amended) The device of claim 20 wherein said channel formation region is crystallized by laser irradiation through [an insulating film] a layer comprising at least one of silicon oxide and silicon nitride on said channel formation region.
- 50. (Amended) The device of claim 21 wherein said channel formation region is crystallized by laser irradiation through [an insulating film] a layer comprising at least one of silicon oxide and silicon nitride on said channel formation region.
- 51. (Amended) The device of claim 22 wherein said channel formation region is crystallized by laser irradiation through [an insulating film] a layer comprising at least one of silicon oxide and silicon nitride on said channel formation region.
- 52. (Amended) The device of claim 23 wherein said channel formation region is crystallized by laser irradiation through a layer comprising at least one of silicon oxide and silicon nitride[an insulating film] a layer comprising at least one of silicon oxide and silicon nitride on said channel formation region.
- 53. (Amended) The device of claim 24 wherein said channel formation region is crystallized by laser irradiation through [an insulating film] a layer comprising at least one of silicon oxide and silicon nitride on said channel formation region.
- 55. (Amended) The device of claim 54 wherein said channel formation region is crystallized by laser irradiation through [an insulating film] a layer comprising at least one of silicon oxide and silicon nitride on said channel formation region.
- 58. (Amended) The device of claim 57 wherein said channel formation region is crystallized by laser irradiation through [an insulating film] a layer comprising at least one of silicon oxide and silicon nitride on said channel formation region.